Drawing Amendments

Please replace the drawing sheets containing Figures 1-3 with the attached substitute sheets.

REMARKS

In the patent application, claims 1-32 are pending. In the office action, all pending claims are rejected.

Applicant has amended claims 27-32 to change "a software program" to "a software application product embodied in a computer readable storage medium". The support for the amendment can be found on Figure 11.

No new matter has been introduced.

At section 1 of the office action, the drawings are objected to because Figures 1-3 should be labeled as "prior art". Applicant has amended the drawings as requested.

At section 3, claims 1-7, 13-21 and 27 are provisionally rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 1-3, 11-12, 15-18, 23 and 24 of the copending Application Serial No. 10/798,825.

Applicant submits herewith a terminal disclaimer to obviate a provisional double patenting.

At section 5, claims 27-32 are rejected under 35 U.S.C. 101 for claiming a non-statutory subject matter.

Applicant has amended claims 27-32 to overcome the 101 rejection.

At section 7, claims 1-10 and 13-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Dischert et al.* (U.S. Patent No. 5,802,226 A, hereafter referred to as *Dischert*), in view of *Christopolous et al.* (U.S. Patent No. 6,526,099 B1, hereafter referred to as *Christopolous*). The Examiner states that *Dischert* discloses a video editing method and device that can be performed in frequency domain (see Abstract). The Examiner admits that while *Dischert* discloses modifying video data for achieving a video effect, *Dischert* fails to disclose using error data. The Examiner points to *Christopolous* for disclosing error data (predictive error data; col.1, lines 40-49). The Examiner states that it would be obvious for one skilled in the art

to use predictive error data as disclosed in *Christopolous*, instead of the video data as disclosed in *Dischert* to achieve the video effect as claimed. Applicant respectfully disagrees.

It is respectfully submitted that *Dischert* uses a memory to store a video sequence and then combine the stored sequence with the incoming video sequence by a mixer to achieve a video effect. In a first embodiment, *Dischert* discloses mixing the video signals in a first or spatial domain, which is irrelevant to the claimed invention. In a second embodiment, *Dischert* discloses mixing the video signals in a second or spatial-frequency domain.

As discussed in the specification of the instant application, the major disadvantage of the spatial domain video editing is that the compressed video must be decoded before editing effects can be introduced in the video signal (p.1, lines 26-29). Even in the spatial-frequency domain editing, *Dischert* requires that one of the video sources be decoded. As shown in Figure 8, the video signal provided to the memory 88 is a transformed playback signal from an error correction code (ECC) decoder 512 (col.6, lines 29-31). The transformed playback signal from the ECC decoder 512 is an encoded digital video signal (see col.6, lines 3-5). Thus, the recorded video in the memory 88 is also an encoded digital video signal. For the above reasons, the output from the memory 88 must be decoded in a variable-length decoder 86 and a run-length decoder 84 (see Figure 8; col.6, lines 33-43).

In contrast, the present invention obtains the decoded quantized transform coefficients from a compressed bitstream and modifies the transform coefficients with a factor $\alpha(t)$. If a further editing effect is desired, the modified transformed coefficients can be mixed with a transform domain component $\chi(x, y, t)$ (see Eq.14, page 9)

In the claimed invention, no decoding is required.

In contrast, the spatial-frequency domain editing procedure, according to *Dischert*, requires the decoding of the transformed playback signal. Even if one substitutes the transformed playback signal, according to *Dischert*, by the prediction error signal as disclosed in *Christopolous*, one would not produce the video effect as claimed without a hindsight gained from the present invention.

For the above reasons, *Dischert*, in view of *Christopolous*, fails to render claims 1-10 and 13-31 obvious.

8

At section 8, claims 11, 12 and 32 are rejected under 35 U.S.C. 103 (a) as being unpatentable over *Dischert*, in view of *Christopolous*, and further in view of *Oguro* (U.S. Patent No. 5,477,276). The Examiner cites *Oguro* for disclosing fade-in and fade-out effects in digital video.

It is respectfully submitted that *Oguro* requires separation of digital video signals into a DC part and an Ac part so that the luminance component Y and/or the chrominance component C in the DC can be controlled (see Figure 4). This means that, in order to apply the method, according to *Oguro*, to the video editing method as disclosed in *Christopolous*, one must change the operations principle of *Christopolous*, because *Christopolous* does not require the separation of the digitized video signal into DC and AC parts. If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the reference are not sufficient to render the claims *prima facie* obvious. *See* MPEP, 2143.01(VI).

Furthermore, claims 11, 12 and 32 are dependent from claims 1 and 27 and recite features not recited in claims 1 and 27. For reasons regarding claim 1 and 27 above, *Dischert*, in view of *Christopolous*, and further in view of *Oguro*, fails to render claims 11, 12 and 32 obvious.

CONCLUSION

Claims 1-32 are allowable. Early allowance of all pending claims is earnestly solicited.

Respectfully submitted,

Ken Lao

Kenneth Q. Lao
Attorney for the Applicant
Registration No. 40,061

WARE, FRESSOLA, VAN DER SLUYS
   & ADOLPHSON LLP
Bradford Green, Building Five
755 Main Street, P.O. Box 224
Monroe, CT 06468
Telephone: (203) 261-1234
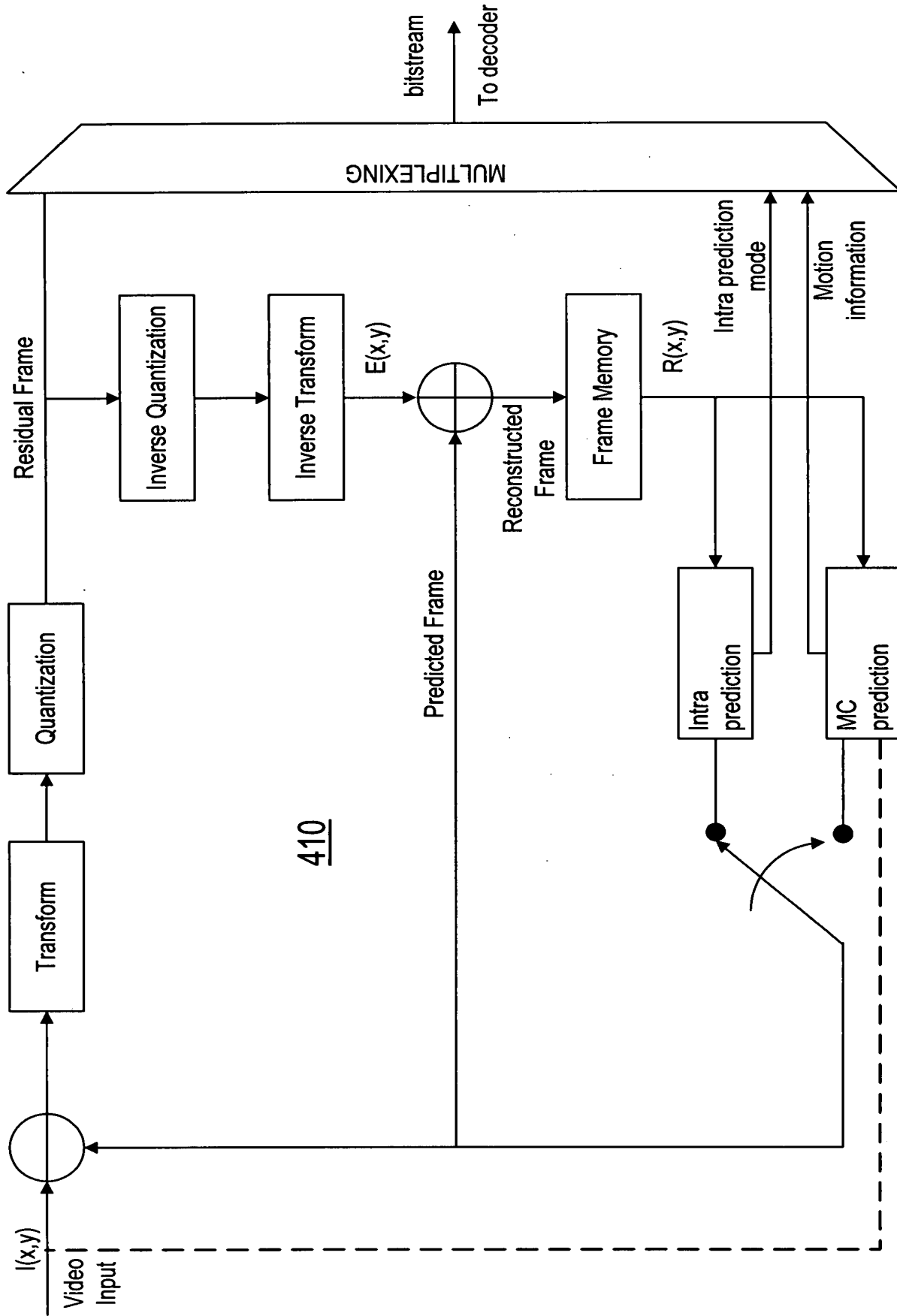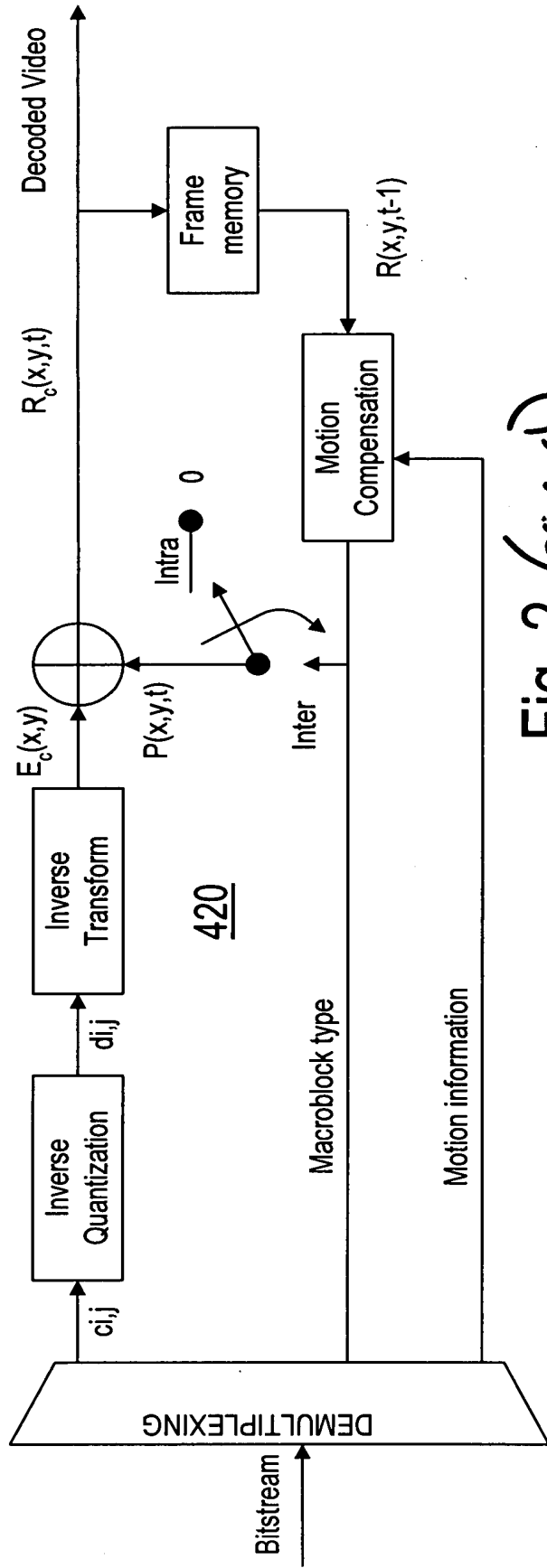Facsimile: (203) 261-5676
USPTO Customer No. 004955

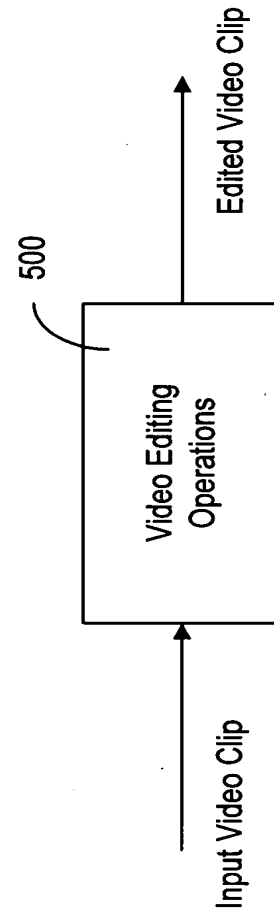Fig. 1 (prior art)

Fig. 2 (prior art)

Fig. 3 (prior art)